



ENHANCE ★ PROTECT ★ CONSERVE

# ANNUAL REPORT

FISCAL YEAR 2022

July 1, 2021 - June 30, 2022





# MESSAGE FROM THE EXECUTIVE DIRECTOR



A handwritten signature in black ink that reads "Joe Spraggins".

Joe Spraggins  
Executive Director

At the Mississippi Department of Marine Resources, we are dedicated to enhancing, protecting and conserving the state's marine interests by managing all marine life, public trust wetlands, adjacent uplands and waterfront areas to provide optimal commercial, recreational, educational and economic uses of these resources consistent with environmental concerns and social changes.

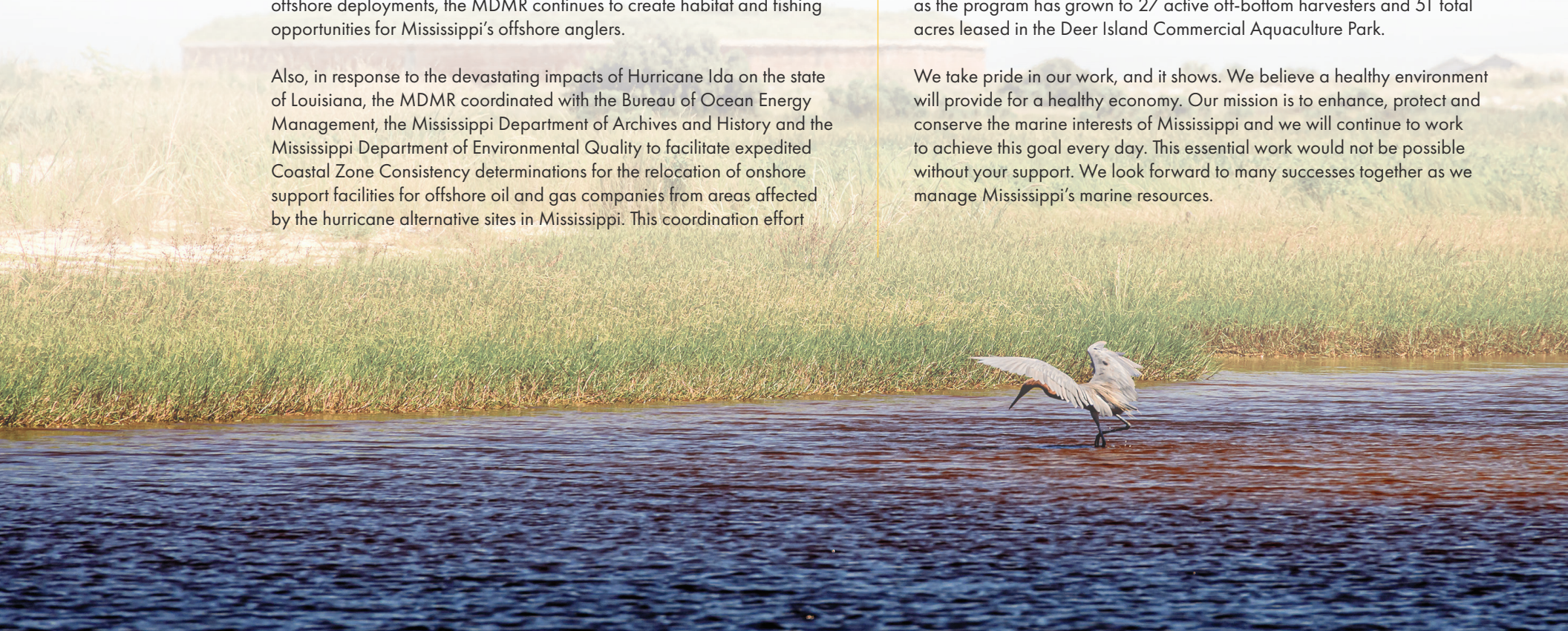
In the last year, MDMR received funding for three National Fish and Wildlife Foundation (NFWF) projects which include enhancing the barrier island artificial reefs, expanding Katrina Key and an assessment of Mississippi's inshore artificial reef complex. The Katrina Key expansion will not only offer great inshore fishing habitat but will also aid in decreasing the wave action on the Deer Island Commercial Aquaculture Park, protecting gear and providing harvesters increased opportunities to work their lease. Additionally, the agency deployed 8,008 tons of material on FH-13 and assisted with the deployment of a 38-foot steel hull research vessel, the R/V Hermes on FH-2. The research vessel was donated by the University of Southern Mississippi's Gulf Coast Research Laboratory. Through these offshore deployments, the MDMR continues to create habitat and fishing opportunities for Mississippi's offshore anglers.

Also, in response to the devastating impacts of Hurricane Ida on the state of Louisiana, the MDMR coordinated with the Bureau of Ocean Energy Management, the Mississippi Department of Archives and History and the Mississippi Department of Environmental Quality to facilitate expedited Coastal Zone Consistency determinations for the relocation of onshore support facilities for offshore oil and gas companies from areas affected by the hurricane alternative sites in Mississippi. This coordination effort

helped to minimize disruption to the nation's oil and gas supply. The agency also provided relief to Louisiana commercial fishermen and charter boat operators by temporarily waiving certain out of state license fees so that those captains could leave and return from a Mississippi port, as well as offload their catch with Mississippi seafood processors, as there was an absence of seafood processing facilities operating in Louisiana following Hurricane Ida's destruction.

The agency continued support with stakeholders, utilizing MDMR's NOAA-approved \$3 million Coronavirus Aid, Relief and Economic Security (CARES) Act II Section 12005 Consolidated Appropriations Act of 2021 plan funds to assist in the recovery efforts of Mississippi's seafood-related businesses in the wake of the pandemic. MDMR also provided cooperative assistance through the NFWF Skimmer Trawl Turtle Excluder Device (TED) Reimbursement Program, issuing payments to Mississippi shrimpers who purchased TED gear to protect sea turtles by excluding the threatened and endangered species from their nets. In addition, new fishery participants completed the 2020/2021 Off-Bottom Oyster Aquaculture training class, as the program has grown to 27 active off-bottom harvesters and 51 total acres leased in the Deer Island Commercial Aquaculture Park.

We take pride in our work, and it shows. We believe a healthy environment will provide for a healthy economy. Our mission is to enhance, protect and conserve the marine interests of Mississippi and we will continue to work to achieve this goal every day. This essential work would not be possible without your support. We look forward to many successes together as we manage Mississippi's marine resources.





# MISSISSIPPI DEPARTMENT OF MARINE RESOURCES

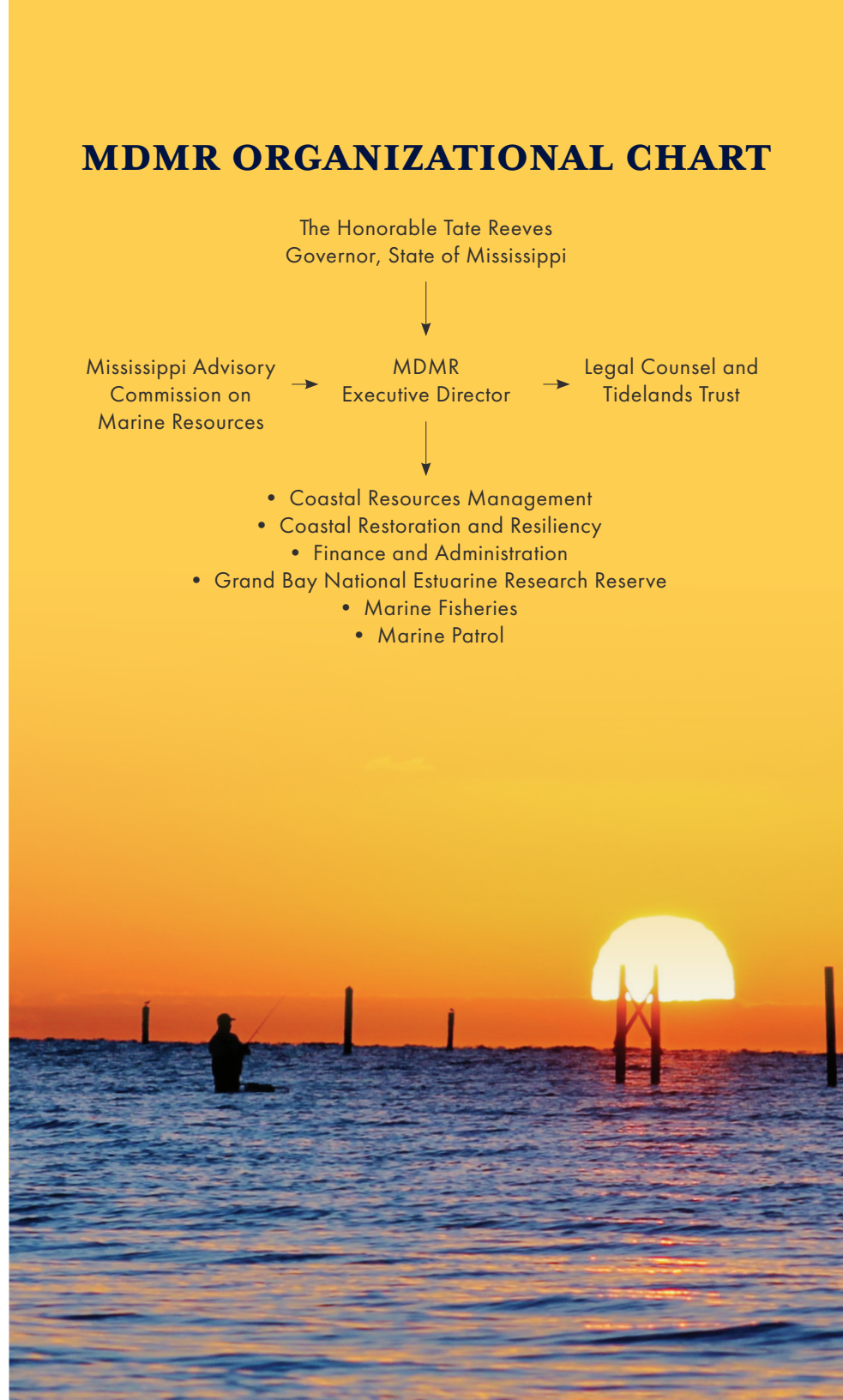
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This annual report was prepared by the Mississippi Department of Marine Resources, Office of the Executive Director, with contributions from staff.

Photo Credits: Tim Lawton (front cover), Joan McCool (inside front cover), Lisa Loth (Table of Contents), Denise Green (pg.1), Phyllis Milligam (pg.7), Lisa Lindsey (pg.25), Evan Grimes (Inside Back Cover), Jordan O. Kariean (back cover) and MDMR Staff.

## MDMR ORGANIZATIONAL CHART





# AGENCY OVERVIEW



## LEADERSHIP

Joe Spraggins,  
*Executive Director*

Rick Burris,  
*Chief Scientific Officer*

Patrick Levine,  
*Chief Operating Officer*

Leslie Brewer,  
*Chief Financial Officer*

Chief Kyle Wilkerson,  
*Chief of Marine Patrol*

Jennifer Wittmann,  
*Coastal Resources  
Management Director*

Rhonda Price,  
*Coastal Restoration and  
Resiliency Director*

Traci Floyd,  
*Marine Fisheries Director*

Ayesha Gray, Ph.D.,  
*Grand Bay NERR Director*

Christy Royals,  
*Human Resources Director*

Brian Sherwood,  
*Information Technology Director*

Charmaine Schermund  
*Public Affairs Director*

Sonja Slater,  
*Tidelands Coordinator*

Russell Weatherly,  
*GOMESA Coordinator*

## MISSISSIPPI ADVISORY COMMISSION ON MARINE RESOURCES

Ronnie Daniels (Chairman),  
*Harrison County  
Charter Boat Operators*

Cammack (Cam) A. Roberds,  
*(Vice Chairman)  
Jackson County  
Recreational Sports Fishermen*

Jonathan McLendon,  
*Harrison County  
Commercial Seafood Processors*

Vacant,  
*Commercial Fishermen*

Vacant,  
*Nonprofit Environmental Organizations*

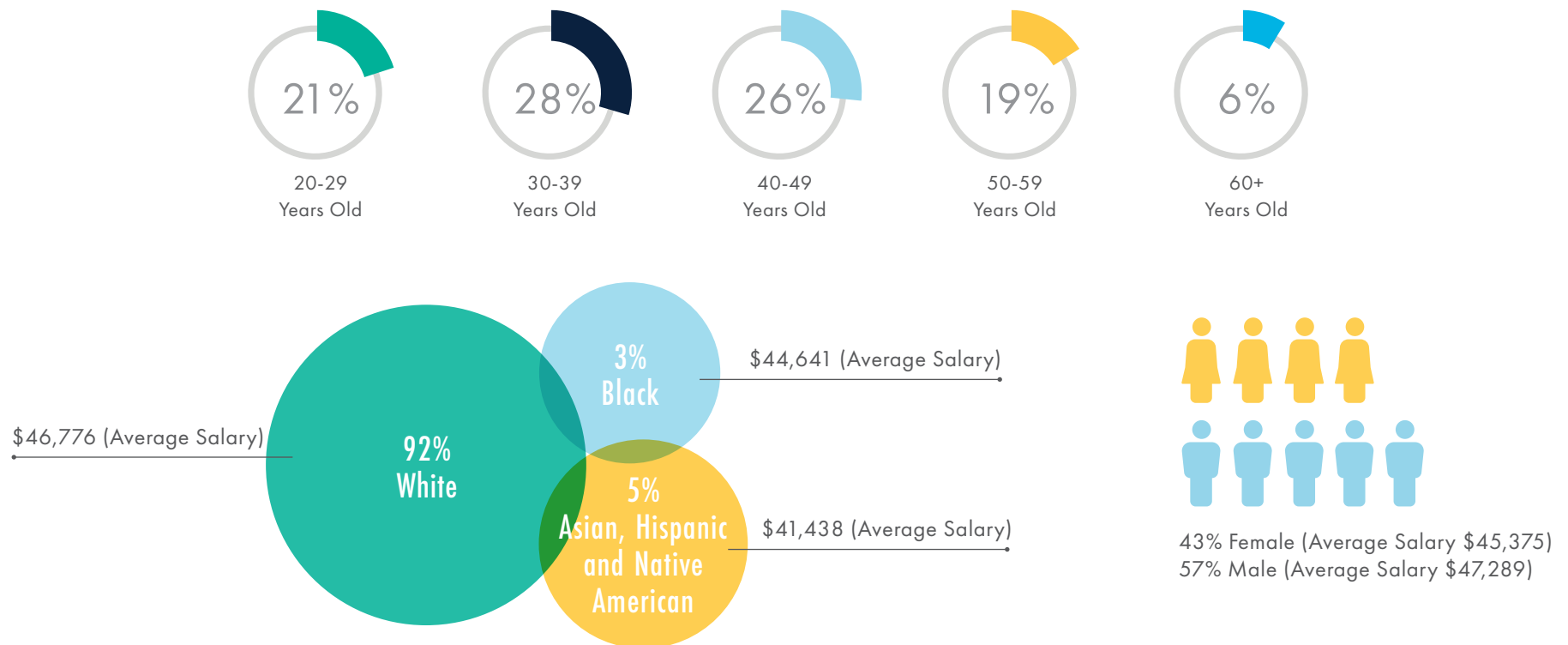


## PERSONNEL OVERVIEW

Human Resources (HR) maintained compliance of personnel budget and expenditures required by Appropriation Bill and the Mississippi State Personnel Board (MSPB). Working with the MSPB Project SEC<sup>2</sup>, HR coordinated completion of the position realignment and salary adjustments to bring employee salaries closer to competitive market position.

The new HRIS system (MAGIC Employee Central) was implemented by the MSPB. HR staff were trained on the new system and transitioned all HR records and employee hiring processes to the new system. HR also managed the MDMR Summer Intern Program by providing 15 interns to the Office of Coastal Resources Management, the Office of Marine Fisheries, the Grand Bay NERR, GIS/IT, Marine Patrol and Public Affairs. During the annual Benefits Open Enrollment process, HR staff communicated details of benefit plans, contact information and employee premiums.

During FY 2022, the agency completed staffing actions for 42 positions, resulting in 19 new hires and 23 internal promotions. Employee orientation was conducted for these hires and the on-boarding process for new employees was completed throughout the year. MDMR employed 150 total employees during FY 2022.

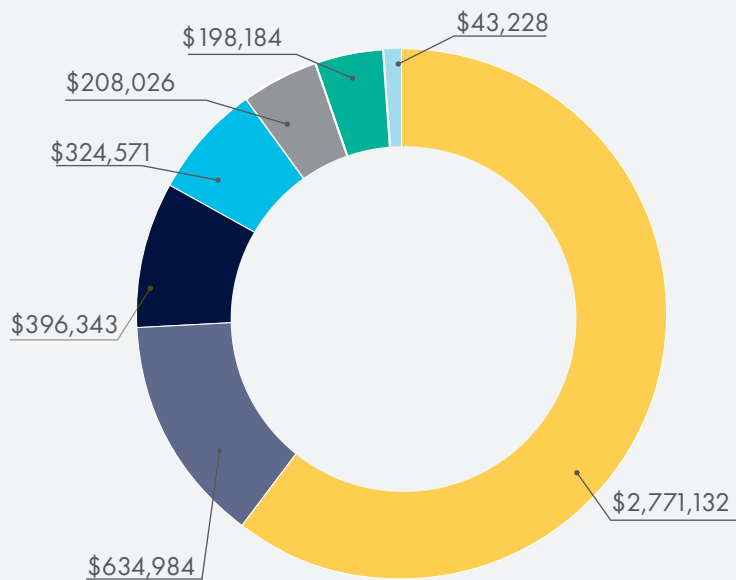




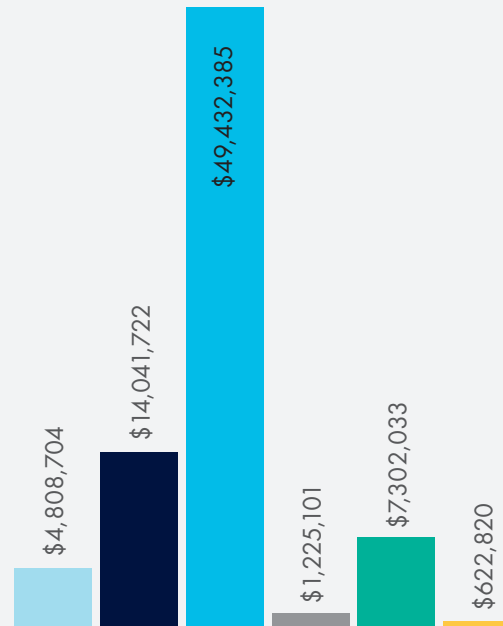
# FINANCIAL SUMMARY

- The agency managed 97 grants, totaling \$77 million.
- There are 82 active agreements.
- 341 vendors were paid out a total of \$29.9 million dollars.
- Processed 137 travel authorizations
- 93,950 licenses sold: 2,853 Commercial, 690 Recreational and 90,407 MDWFP.

PURCHASE ORDERS BY BUREAU



FUNDS MANAGED BY GRANTS



- Coastal Resources Management
- Coastal Restoration and Resiliency
- Finance and Administration
- Grand Bay NERR
- Marine Fisheries
- Marine Patrol
- Tidelands

AGENCY EXPENSES BY CATEGORY

Contractual Services	\$3,876,582
Commodities	\$1,764,637
Equipment	\$491,016
Federal Indirect	\$337,821
In-state Travel and Subsistence	\$76,151
Salaries, Wages and Fringe Benefits	\$9,372,233
Subsidies, Loans and Grants	\$14,014,117
Vehicles	\$6,500
<b>TOTAL</b>	<b>\$29,939,057</b>



## GULF OF MEXICO ENERGY SECURITY ACT (GOMESA)

The signing into law of the unprecedented GOMESA in December 2006 created an opportunity for the State of Mississippi in terms of its potential magnitude and significance. This landmark legislation enables Mississippi and its neighbor offshore energy-producing states –Alabama, Louisiana and Texas – to share in royalties from revenues generated through federal oil and gas leases on the Outer Continental Shelf (OCS), royalties that prior to GOMESA’s enactment, were deposited in their entirety into the Federal Treasury. The intent of GOMESA’s revenue-sharing provision is to provide resources to the coastal states to offset the potentially harmful effects of energy production within - and adjacent to - the Gulf of Mexico, such as coastal erosion, habitat degradation and natural resources depletion.

### CURRENT GOMESA PROJECTS

MDMR-Bonnet Carre’ Response	Formally establish the Western Sound Science Collaborative and perform citizen science initial water quality monitoring. Efforts will provide precise operational recommendations for operating the Bonnet Carre Spillway accounting for flood control and ecological impacts.
JCBOS-Watershed Management Plan	Describe existing conditions, areas of concern and management actions that could improve watershed conditions and prevent future degradation.
Diamondhead Marsh Erosion Prevention	Restore the shoreline, restore water quality and enable monitoring for both conservation and restoration progress.
DWSD-Diamondhead Sewer Improvements	Improve coastal water quality, protect our natural resources and mitigate damage to fish and wildlife by eliminating the inflow and infiltration problems due to an insufficient sewer system.
Pass Christian Sanitary Sewer Pump Station Replacement	Replace the main pump station on the south side of the CSX railroad right-of-way. The pump station is severely undersized and is lacking sufficient pumping and storage capacity.
HANCO UA-Atlantic Street Area Sewer Improvements	Installation of a grinder pump/low pressure sanitary sewer collection system in the area which is not presently served by a centralized sewer collection system.
Long Beach-Small Craft Harbor SE Bulkhead Repair	Construct improvements to the southeast corner of the small craft harbor. Improvements will be in the form of a constructed bulkhead wall which will provide protection and stabilization at that location, which has been damaged repetitively by storms.
Kiln Utility District-Jordan River Shores Sewer Force Main	Abandoning the submerged sewer force main, installing 1,500 LF of 6” PVC force main and connecting this new line to a different discharge location far away from any natural body of water.
Biloxi-Point Cadet Living Shoreline	Restore 1,000 feet of shoreline along the Biloxi Waterfront Park through construction of a living shoreline and will also include a new walkway and elevated overlook to enhance public access as well as protect the coastal ecosystem.
MDMR-Oyster Restoration and Enhancement	Restore and enhance the oyster reefs of Mississippi through replacement of cultch material and other innovative oyster restoration techniques.



## CURRENT GOMESA PROJECTS

MDMR-Reef Fish Monitoring and Assessment	Adjusted continuation of the initial National Fish and Wildlife Foundation Reef Fish Assessment, which provided MDMR with a consistent and robust data stream of relative abundance for Mississippi's primary reef fish populations, particularly Red Snapper.
HANCO UA-Oak Harbor Sewer Improvements	Acquisition of privately-owned water and sewer system and the associated MS Public Service Commission franchise certificates and replacement of the sanitary sewer collection system and connection to the public sewer system for treatment at the HCUA Western facility.
HANCO PORT/HARBOR	Port Bienville Conservation Management – to construct a wetlands conservation area and implement a Permittee Responsible Mitigation Plan pursuant to COE provisional permit.
Gautier-Water Quality and Infrastructure Sewer Improvements	Work has begun and will include installing 10,000 LF of new force main from the pump station at Gautier-Vancleave Road and Old Spanish Trail to the pump station near Robertsdale Road and installing 1,000 LF of new gravity sewer on Gautier-Vancleave Road south of Hwy 90.
Pascagoula-Buena Vista Area Drainage Improvements	Project is 75% complete and consists of drainage improvements along Washington Avenue and South Buena Vista Street within 500 feet of the Gulf of Mexico.
Pass Christian-Gravity Sewer System Improvements – Phase I	Serve to replace a portion of the existing gravity sewer system north of CSX Railroad within the city limits.
Pascagoula-Point Park Pier Repairs/Improvements	Project is now complete. Involved repairing/ replacing of damaged areas of several piers, replacing outdated, deteriorated timber pilings with concrete pilings, provide new decking, handrails and transition ramps and connecting to existing piers.
MDMR-Railroad Corner Beneficial Use Site (BU Site)	Conceptual design, permitting and final design of the Railroad Corner BU site.
USM-Blue Crab Data Collection	Commercial observer program for collection of fishery-dependent information on Blue Crabs. Completed June 2022.

## NEWLY AWARDED GOMESA PROJECTS FOR FY 2022

MSU/IMMS	Evaluate and monitor marine mammal and sea turtle abundance, population health, habitat delineation and restoration impacted from the opening of the Bonnet Carre' Spillway. Continuing the work of the previous project.
NOARC-Cat Island	Baseline Inventory of Critical Seagrass Habitat. Work is ongoing and will continue for the next couple of years.
NOARC-Pelican Key	Baseline Hydrographic Survey to characterize bathymetry and bottom substrate of historic island footprint. Work is ongoing and will continue for the next couple of years.
NOARC-Wetlands Inventory	Baseline inventory of wetland habitats affected by upstream changes in natural hydrology. Work is ongoing and will continue for the next couple of years.



## NEWLY AWARDED GOMESA PROJECTS FOR FY 2022

MDMR-Shrimp Processors Feasibility Study	Provide the requisite information to industry and MDEQ to allow selection of the type of wastewater treatment equipment necessary to treat effluent from shrimp processing facilities. Work is just beginning and will take about a year to complete.
Jackson County UA-Septic System Abatement	Extension of sewer collection systems to Jackson County's underserved areas including Vancleave, Hurley, Three Rivers and Helena. Converting approximately 450 residences from on-lot septic to public systems at no cost to the resident.
USM-MS Coastal Fishery Resource Assessment	Support the capability of the Mississippi Stock Assessment Panel, established by an MOU between MDMR and GCRL. Develop and implement improved stock assessments for enhanced management of coastal finfish and shellfish resources.
MDMR-Katrina Key Expansion	Expand Katrina Key to the east, approximately 2,500 feet. The expansion will allow the key to extend its coverage and serve as a breakwater to the highest energy location of the island.
MDMR-Katrina Key Expansion Phase II	Additional funding for the continuation of Phase I.
Secretary of State's Office-Broadwater Marina Restoration	Bulkhead restoration: drainage repair integral to the bulkhead, scour pad and necessary earthwork to the bulkhead.
Pass Christian- Sewer Pump Station Repairs	Repair two existing sewer pump stations (Shadowlawn Avenue and Emerald Avenue), which are located on the north side of U.S. Highway 90 across from the sand beach.
Diamondhead-Drainage, Flood Prevention, Water Quality	Three subprojects that will provide drainage infrastructure improvements, wetland restoration and improve detention facilities for future watershed events.
MDMR/MSU-Mid Breton and Bonnet Carré Response	Provide management recommendations for oysters and brown shrimp built upon quantitative justifications for improving the water quality and ecology in the Western Mississippi Sound while accounting for the impacts from proposed Mid-Breton Sound and Bonnet Carré Spillway. Project is just getting under way.
Ocean Springs Front Beach Storm Water Mitigation	Initial demolition and disposal of the remaining structure, asphalt, concrete and existing bulkhead. Landscape property, provide a green parking lot and an improved bulkhead to support the proposed activity.
Pass Christian- Gravity Sewer System Improvements	Replace a portion of the existing gravity sewer system north of CSX Railroad within the City limits of Pass Christian. Project boundaries extend from Henderson Avenue eastward to Menge Avenue, along East and West North Streets.
MDMR- Off Bottom Oyster Aquaculture (OBOA)	Provide training for OBOA operations: business development, aquaculture methodologies and hands-on training on state-owned farms. Develop and implement a two-phase program for qualified and interested individuals to learn the ecological, economic and business components of initiating and maintaining an OBOA operation.
Pascagoula Beach Open Channel Outfalls	Improve existing outfalls at two locations; removing and replacing the bulkheads, so they can withstand additional weight from sand and prevent erosion due to water over-topping the bulkheads during normal tide and extreme flooding events such as hurricanes.

## TIDELANDS

The Tidelands Trust Fund is comprised of funds derived from the lease of tidelands and submerged lands and is administered by MDMR as mandated by state law. The Secretary of State's Office presents the Tidelands check to Mississippi Department of Marine Resources (MDMR) officials and legislators each year. The state Legislature each year approves Tidelands funding for MDMR to administer through the Tidelands Program. This action is authorized through the Mississippi Code of 1971 Section 29-15-9 and Section 29-15-10. During the 2020 session, the Legislature approved \$7,349,277 in funding through HB 1726. During the 2021 session, the Legislature approved \$12,226,497 in projects through HB 1412. During the 2022 session, the Legislature approved \$12,455,247 in projects through HB 1624. Currently Tidelands has 189 open projects, 117 public access projects and 72 managed projects.

THE LEGISLATURE APPROVED THE FOLLOWING PROJECTS DURING THE 2022 SESSION FOR FUNDING IN FY23:

### HARRISON COUNTY

- Richards Bayou Dredging Project (City of Gulfport)
- Broadwater Marina Public Access and Marina Basin Restoration (Secretary of State)
- Kuhn Street Boat Ramp Parking Project Phase II (City of Biloxi)
- Dredging Parker's Creek (City of Biloxi)
- Hiller Park Boat Launch (City of Biloxi)
- Removable Restroom Units for the West Side of the Gulfport Small Craft Harbor (City of Gulfport)
- D'Iberville Working Waterfront Harbor and Marina Public Access (City of D'Iberville)
- Long Beach Harbor Improvements (City of Long Beach)
- Secure Concrete Fillers at East Small Craft Harbor (City of Pass Christian)
- 20th Avenue and Highway 90 Beach Side Parking Improvements - Phase I (Harrison County Board of Supervisors)
- West Biloxi Boat Launch (Harrison County Board of Supervisors)
- Long Beach Park Volley Ball Court Improvements (Harrison County Board of Supervisors)

### JACKSON COUNTY

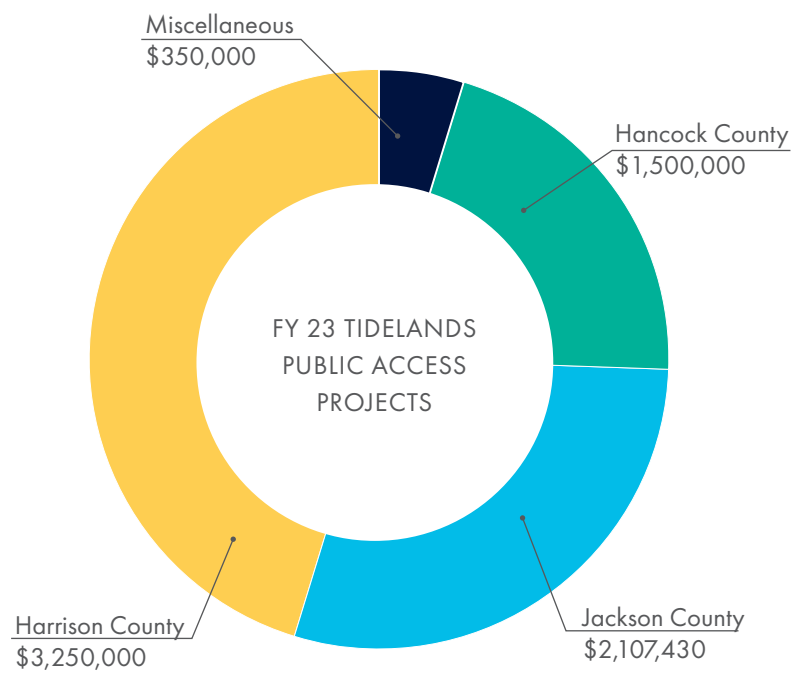
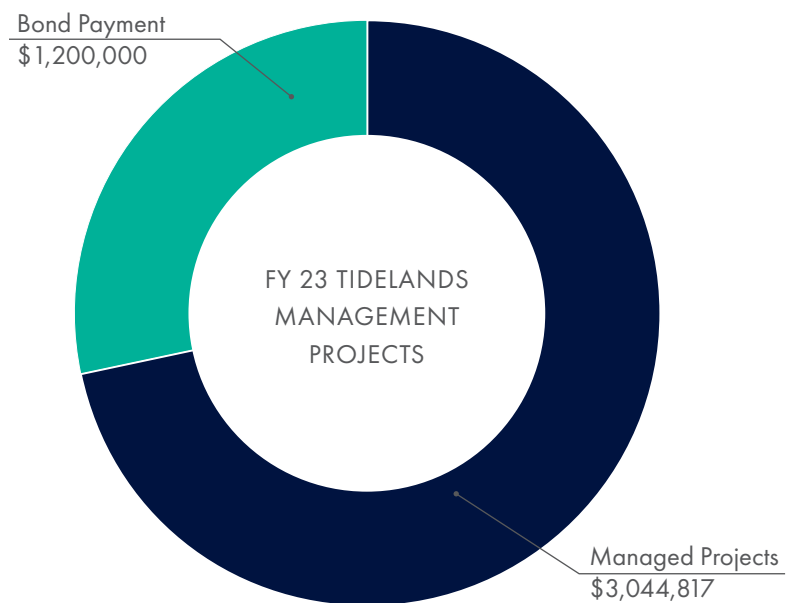
- Washington Ave. at Front Beach Access (City of Ocean Springs)
- Shepard State Park Upgrades (City of Gautier)
- Mary Walker Bayou Parks (City of Gautier)
- Public Safety Improvements to River Parks Piers (City of Pascagoula)
- Rhodes Bayou Watershed Improvements Phase (City of Moss Point)
- Lake Mars Pier Expansion Project (Jackson County Board of Supervisors)
- Race-Track Road Boat Launch Phase II (Jackson County Board of Supervisors)
- Study to Analyze a Jetty System to Prevent Erosion of the Ocean Springs Front Beach (Jackson County Board of Supervisors)

### HANCOCK COUNTY

- Noma Drive Public Access Projects (City of Diamondhead)
- Downtown Boardwalk Assistance (City of Bay St. Louis)
- Marina Planning and Design Assistance (City of Waveland)
- McLeod Park Bulkhead Improvements (Hancock County Board of Supervisors)

TIDELANDS FUNDING HISTORY	
2014	\$9,787,443
2015	\$9,787,443
2016	\$9,787,443
2017	\$4,700,000
2018	\$9,787,443
2019	\$10,000,000
2020	\$11,000,000
2021	\$7,349,277
2022	\$12,226,497
2023	\$12,455,247







# OPERATIONAL SUPPORT

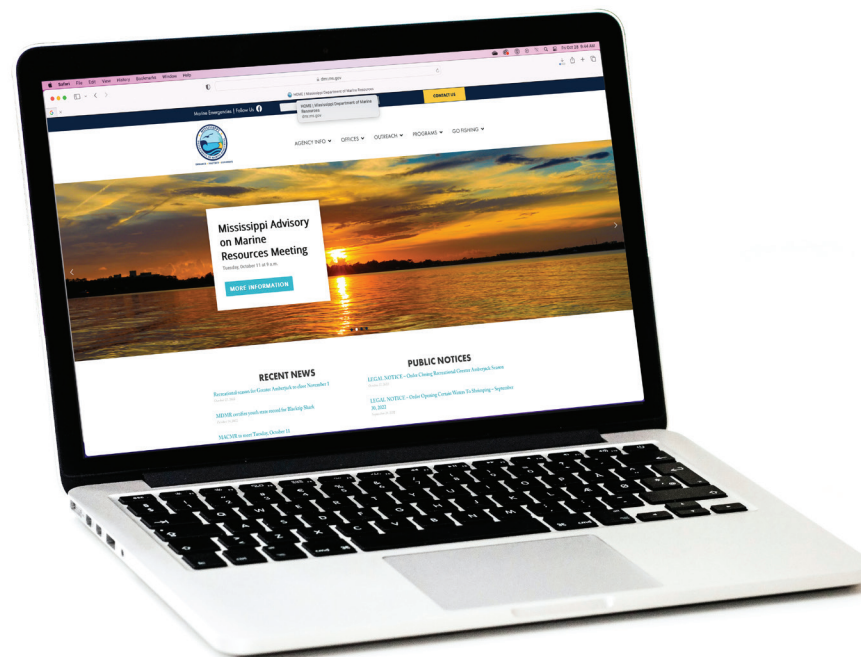
## FACILITIES

- Initiated construction of a second broodstock spawning aquaculture facility at the Lyman Aquaculture Hatchery.
- Added heating and cooling to the vessel maintenance facility located at Lyman, as well as replaced all high bay lighting fixtures with energy efficient LED fixtures.

## INFORMATION TECHNOLOGY

- Completed design and implementation of a new online finance and contracts workflow management system.
- Maintained and enhanced 12 custom GIS-based data collection and viewing solutions, which included four for public use.
- Developed and maintained rapid field data collection solutions for mapping and tracking treatment of invasive species and fisheries restoration efforts.
- Developed online solutions for multiple customer-facing programs, including CARES Act 2, Skimmer TED, Tidelands and Seafood Processors Pandemic Response.
- Managed five agency websites, including security, system updates, change requests and training of employee contributors, including design and development of two new sites for Mississippi Gulf Coast National Heritage Area and Grand Bay NERR.
- Continued to evolve and expand agency UAS operational capabilities, including the expansion of FAA certified pilots from two to 23.
- Engaged in external collaboration and partnership activities, such as hosting and participating in the 9th Annual statewide GIS conference, and participated in planning for the annual Mississippi Digital Government Summit.
- Continued modernization activities for agency IT infrastructure, including desktops, servers and network infrastructure.
- Completed 925 agency work orders.

- Completed the refurbishment of all boat lifts at the Ocean Springs Harbor and installed safety railing around the area.
- Completed damage repairs from Hurricane Zeta to the Pass Christian Oyster Check Facility. By using mitigation funds from FEMA, the agency was able to make improvements to prevent damage in future storms.





PROPERTY MANAGEMENT

Property Management’s mission is to maintain accountability for all state property under the control of the MDMR and maintain all pool vehicles and vessels to ensure their operational readiness. Property Management accounts for each inventory item with the State Auditor’s Office. MDMR’s costs to maintain the fleet is evaluated regularly and fleet is updated accordingly.

TOTAL VALUE OF PROPERTY	VEHICLES	BUILDINGS	LAND PARCELS	MARINE VESSELS	JET SKIS
\$31,464,518	96	24	55	49	2





# COASTAL RESOURCES MANAGEMENT

The Office of Coastal Resources Management (CRM) is responsible for implementing the Mississippi Coastal Program, which was mandated by the Legislature in Section 57-15-6 of the Mississippi Code of 1972 and approved by NOAA. CRM also administers the following programs Coastal Preserves, Wetlands Permitting and Mitigation, Invasive Species and Beneficial Use.







## COASTAL PRESERVES

- First prescribed burn on a beneficial use site (DIMR1) and burned 30 acres.
- First forestation on a beneficial use site. Planted approximately 2,000 slash pine trees and 12 live oak trees.
- Mowed and maintained approximately 14 miles of trails.
- Invasive species work (Chinese tallow, phragmites and cogon grass) completed at multiple preserves.
- Aquatic invasive control in multiple waterways for multiple species (giant salvinia, giant applesnails, common salvinia, torpedo grass and alligatorweed).
- 154 feral hogs removed from nine coastal preserves properties.
- Developed forest management plans for maintaining pine flatwood and savanna habitats.
- Partnered and entered into a contract with Enviva Biomass for thinning and underbrush removal operations.
- Public outreach events at the Mississippi Aquarium as part of National Invasive Species Awareness Week and at Bayou View Elementary School.
- 30,000 cubic yards of dredged material added to the Greenwood Island beneficial use site.





## WETLANDS PERMITTING

- Hosted two training sessions for marine contractors and consultants on utilization of living shorelines for erosion control. Living shorelines can stabilize property while also providing habitat for important coastal wetlands species. The training included information on how to design, permit and implement these ecologically friendly projects.
- Coordinated with the Bureau of Ocean Energy Management and the Coastal Program Agencies to facilitate expedited Coastal Zone Consistency determinations for the relocation of onshore support facilities for offshore oil and gas companies from areas in Louisiana affected by Hurricane Ida to alternative sites in Mississippi. This coordination effort helped to minimize disruption to the nation's oil and gas supply.
- Willa Brantley presented about the bureau's activities and procedures at a mapping workshop hosted by Planet Labs, a mean high tide training session for registered surveyors and EPA's Region 4 Wetlands/Section 401 annual workshop.
- Greg Christodoulou and Matt Murphy serve on the Interagency Review Team which reviews proposed Mitigation Banking Instruments, inspects proposed and existing banks and participates in credit release surveys for mitigation banks servicing the MS Coastal Zone. They attended the National Mitigation and Ecosystem Banking conference where they learned about innovations and changes in mitigation banking strategies, surveys and evaluations.
- Completed updates to the online application portal which was launched in October 2020 to make submitting Wetlands Permit Applications online more straightforward.

COMPLETED ACTIONS (application evaluations, compliance actions and project reviews)	
Regulated Activities/Coastal Zone Consistency Determinations	711
Potential Violations Investigated	30
Pre-Project Reviews	90
TOTAL	831

The Derelict Vessel Program was established by the Legislature in Section 49-27-71 of the Mississippi Code of 1972, giving MDMR the authority to remove certain vessels determined to be a public safety or environmental hazard.

During FY22, an updated act was passed by the Mississippi Legislature allowing MDMR to remove abandoned and otherwise derelict vessels from the waterways. This new bill, which took effect July 1, 2022, provided more extensive and inclusive definitions of what constitutes a derelict vessel and provides for penalties to be assessed against the registered owners of derelict vessels.

When vessels are abandoned in Mississippi's coastal wetlands or areas of heavy use by commercial and recreational boaters, the derelicts are hazardous to navigation and detrimental to the wetland environment. This program enforces state laws through the removal and disposal of derelict vessels, which protects the environment and keeps coastal wetlands and navigable waterways safe for the general public.





# COASTAL RESTORATION AND RESILIENCY

## BOAT ACCESS

- Award Bayou LaCroix, City of Bay St. Louis - \$105,562.50

## BOATING INFRASTRUCTURE GRANT PROGRAM

- Award City of Waveland, Hancock County - \$200,000

## CLEAN VESSEL ACT

- Board of Supervisors of Jackson County - \$15,000.00; Replacement of pump out system for the Ocean Springs Harbor in Coastal Mississippi. Project completed December 2021.
- Midway On the Tenn-Tom, Inc. - \$6,406.16; Installation/replacement of pump out system at Midway Marina in Fulton, Miss. Project completed September 2021.

## GULF OF MEXICO ALLIANCE

- Funded two Gulf Star projects - \$50,000
- Provided coordinator position for Coastal Resilience Team

## NATIONAL HERITAGE AREA

- O'Keefe Educational Media d/b/a Disability Connection - \$20,000.00
- Land Trust for the Mississippi Coastal Plain Project: Ramsey Springs- \$8,964.61
- Hancock County Chamber of Commerce - \$10,499.17
- Hancock County Historical Society, Inc. - \$8,000.00
- Our Mother of Sorrows Catholic Church - \$5,030.00
- The John C. Robinson Brown Condor Association Project: Aviation Heritage Museum - \$15,000.00
- Land Trust for the Mississippi Coastal Plain Project: Shaw Homestead- \$10,450.00
- Hancock County Tourism Development Bureau - \$8,000.00
- Mardi Gras Museum, Inc. - \$3,000.00
- Biloxi Cruise Company, LLC - \$27,000.00
- Waveland's Ground Zero Hurricane Museum, Inc. - \$3,500.00
- Jackson County Board of Supervisors Recreation - Project name: (Nature-based Tourism Coordinator) - \$20,000.00
- Charnley-Norwood House Tours: 62 Meetings/Workshops: 3
- Heritage Community Grant Program: 12 completed projects total investment \$280,000





# GRAND BAY NATIONAL ESTUARINE RESEARCH RESERVE

The Grand Bay National Estuarine Research Reserve (NERR) is a program of the Mississippi Department of Marine Resources. Designated in 1999, the NERR is one of 29 reserves in the National Estuarine Research Reserve System (NERRS), which is a state-federal partnership operated by NOAA's Office for Coastal Management.







- Continuation of our participation in the MDMR internship program to provide exceptional and varied on-the-job experiences to Mississippi college students.
- Developing an herbarium of wet pine savanna plant species and joining the digital catalog at the SouthEast Regional Network of Expertise and Collections (SERNEC).
- The return of the Grand Bay NERR's annual Star Party Open House and Celebrate the Gulf events.
- Our biannual Research Symposium was held September 2021.
- The first Margaret A. Davidson fellow, Matthew Virden, completed his Master's degree and is continuing with a doctoral degree. Amanda Free has been selected as our 2022-2023 fellow.
- Dramatic landscape restoration results from the NRDA Grand Bay Land Acquisition and Habitat Management, our partnership with MDEQ and USFWS.
- Many new scientific efforts, including several new publications and the monitoring of nesting terrapins.



# MARINE FISHERIES

The Office of Marine Fisheries provides for the effective management of the state's commercial and recreational marine fisheries, including oysters, shrimp, crabs and finfish. It includes conservation and overall management of marine resources through research and data collection as modified by relevant social, economic and biological factors. Marine Fisheries uses the most appropriate methods for management, including but not limited to, regulating harvesting, habitat enhancement, water quality monitoring for molluscan shellfish harvesting, setting of catch limits and seasons and seafood safety inspections of processing and distribution facilities.

- Continued development of NOAA-approved spend plan for over \$21 million 2019 Bonnet Carré Emergency Disaster Recovery Program funds to monitor and assist the recovery of Mississippi's fisheries.
- Utilized MDMR's NOAA-approved plan for \$3 million Coronavirus Aid, Relief and Economic Security (CARES) Act II Section 12005 Consolidated Appropriations Act of 2021 funds to assist in the on-going recovery efforts of Mississippi's seafood related businesses, such as commercial fishing, processing, marine aquaculture and charter-for-hire.
- Developed protocols and processes, as required, to establish certification for the Office of Marine Fisheries dry laboratory to improve the state's capability to complete complex seafood sample analysis and safety testing.
- In partnership with the Mississippi Department of Agriculture, developed and initiated the over \$1.6 million Seafood Processors Pandemic Response and Safety Block Grant program funded by the Pandemic Assistance provided in the Consolidated Appropriations Act of 2021 which was awarded to assist in the recovery efforts of Mississippi's seafood and catfish processing businesses.
- Served on regional management committees of the Gulf States Marine Fisheries Commission (GSMFC), including Artificial Reef Task Force, Menhaden Advisory Committee, White Trout Fishery Task Force, Blue Crab Task Force, Fisheries Information Network Committee, Data Management and Recreational Fishery Subcommittees, Technical Coordinating Committee, Gulf and South Atlantic Resource Partnership and the State/Federal Fisheries Management Board. Marine Fisheries personnel also served on the Gulf of Mexico Fishery Management Council, as well as their Red Drum and shrimp committees.





## ARTIFICIAL REEF BUREAU

- 52 loads of material, consisting of 1,056 concrete culverts, were donated to the program.
- 36 inshore reef assessments were performed, which included seven offshore reef assessments tagging of juvenile reef fish.
- Received federal funding for three National Fish and Wildlife Foundation (NFWF) projects, which includes, enhancing the barrier island reefs, a Katrina Key expansion and an inshore artificial reef assessment.
- Eight offshore deployments at FH-13 (8,008 tons of material deployed from the MDMR staging yard in Gulfport).
- R/V Hermes was deployed on FH-2.







## FINFISH BUREAU

- Conducted a total of 1,763 angler surveys across 58 public access sites throughout the three coastal counties of Mississippi.
- Provided Mississippi anglers 35 days throughout May and June 2022 to fish for Red Snapper with plans to extend the season to include Labor Day weekend. An additional 85 days were provided to anglers from July through November 2021.
- Processed a total of 5,996 tickets from the commercial fishery and monitored the quotas for Red Drum, Spotted Seatrout and Southern Flounder.
- Processed, presented and approved 20 total state records, including eight youth state records.
- Tagged and monitored a total of 60 Southern Flounder, five Red Drum and four Cobia through passive acoustic telemetry.
- Conducted a total of 172 fishery independent sampling events across the Mississippi Sound and worked cooperatively to assist other bureaus in monthly monitoring.
- Initiated three flounder-focused projects aimed at monitoring relative abundance, movement patterns and habitat preferences across the three coastal drainages.
- Worked cooperatively with USM to fund numerous projects through Sportfish Restoration funds. These projects focus on monitoring sportfish populations and gathering tag recapture information for numerous important recreational species.
- Collected a total of 891 otoliths from 11 different species through both fishery dependent and fishery independent monitoring programs.



## SALTWATER FISH RECORDS

### JULY 2021

Red Snapper	19 pounds, 1 ounce	Mason Watts (youth)
Bull Shark	377 pounds, 4 ounces	David Rogers (conventional tackle)
Keeltail Pomfret	16 pounds, 8 ounces	Jimmy Boleware (conventional tackle)
Shark Sucker	3 pounds, 4.8 ounces	Doug Borries (fly fishing)
Little Tunny	14 pounds, 2.4 ounces	Doug Borries (fly fishing)

### AUGUST 2021

Ladyfish	2 pounds, 9.6 ounces	Riley Armes (youth)
Vermilion Snapper	5 pounds, 3.2 ounces	James Landers (conventional tackle)



### SEPTEMBER 2021

Cownose Ray	22 pounds, 11.04 ounces	Rodie Armes (youth)
Red Lionfish	2 pounds, 12.98 ounce	Joseph Triplett (all tackle-spear)

### DECEMBER 2021

Ladyfish	2 pounds, 11.04 ounces	Rodie Armes (youth)
Scamp	20 pounds, 12 ounces	Blake Bosarge (youth)
Golden Tilefish	20 pounds, 11.68 ounces	Dustin Conway (conventional tackle)
Inshore Lizardfish	9.1 ounces	Jordan Matthews (conventional tackle)

### MAY 2022

Rock Hind	3 pounds, 10.4 ounces	Trey Tinkle (conventional tackle)
Smooth Puffer	10 pounds	Phillip Overman (conventional tackle)

### JUNE 2022

Blackbelly Rosefish	2 pounds, 11.2 ounces	John Wright (conventional tackle)
Bigeye	2 pounds, 11.52 ounces	Harley Havard (all tackle-spear)
Unicorn Filefish	5 pounds, 9.8 ounces	Brandon Powell (all tackle-spear)





## SEAFOOD TECHNOLOGY BUREAU

### REGULATORY

- 210 total inspections.
- 14 water samples collected.
- Working towards the transition from paper inspections to digital inspections.
- Completed one illness investigation pertaining to Vibrio, confirming Mississippi oyster safety.
- 2022 Food and Drug Administration Program Element Evaluation Report (PEER) of the Plant Processing and Shipping Element evaluation with a conformance rating.

### RESEARCH

- Development of wet storage operational procedures with oyster dealers.

### TRAINING

- Hosted a Basic Seafood Hazard Analysis and Critical Control Point (HACCP) training for the seafood industry and the public.
- Completed Seafood HACCP, Shellfish Plant Standardization, Allergen Management, FSPCA Intentional Adulteration, Building a Food Safety Culture, Developing an Environmental Monitoring Program, Food Defense Management Certification, Internal Auditing, Sanitary Design for Food Plants, Conducting Vulnerability/Assessment Plan and PCQI Lead Instructor courses.







## SHELLFISH BUREAU

- Reef cultivation included approximately 160 acres of the western Mississippi Sound.
- Completed 70 one-minute dredge tows and 173 square meter dive samples for reef assessments.
- 27 active off-bottom harvesters for 2021 and 51 acres leased in the MDMR Commercial Aquaculture Park.
- 3.5–4 million oyster seeds being cultured; commercial operations harvested approximately 187,626 oysters from July 1, 2021 – June 20, 2022.
- Completed 2020/2021 Off-Bottom Oyster Aquaculture training class with six participants.
- Deployed approximately 19.3 million oyster spat on the Biloxi Bay Reef through Remote Oyster Setting Facility Phase I Project.
- Water Quality Analysis performed through monthly water sample collection and fecal coliform analysis for FDA Compliance. The bureau collected 760 water samples for fecal coliform analysis.
- Harmful Algal Bloom Analysis performed through monthly seawater samples are collected at 15 locations for cell identification. Collected 180 samples and completed in-house qualitative analysis for HAB presence.
- Sanitary Surveys completed through annual evaluation of all environmental factors that affect the water quality of shellfish growing waters. Collected data monthly to determine environmental factors and fecal coliform results.
- Assessed and addressed high levels of fecal coliforms present in areas of the Mississippi Sound.





## SHRIMP AND CRAB BUREAU

- Derelict Crab Trap Cleanup Program – Conducted six targeted trips to remove derelict crab traps from the marine environment. 38 derelict traps were removed, both as bycatch during routine trawl sampling and through these targeted removal efforts. Since 1999, 22,288 traps have been removed and recycled from Mississippi state waters.
- Special Permits - Issued 57 scientific research permits, two experimental gear permits and two marine brood stock permits.
- Live Bait Shrimp Dealer Licensing - Processed applications, inspected and provided assistance to 11 bait camps.
- National Fish and Wildlife Foundation (NFWF) Skimmer Trawl Turtle Excluder Device (TED) Reimbursement Program - Issued payment to 46 commercial trawl fishermen.
- Provided coordination and administrative support of five Sport Fish Restoration Act (SFR) grants and sub-grants. This included formulating and submitting proposals, budgets, reports and ensuring compliance with all federal rules and regulations. Staff also completed the U.S. Fish and Wildlife Service's (USFWS) Virtual Basic Grants Management course during this fiscal year.
- Worked with the Mississippi Department of Wildlife, Fisheries and Parks (MDWFP) to host the 50th Annual Wildlife and Sport Fish Restoration (WSFR) Program Coordinators' Meeting and ESA Section Six Program Coordinators' Meeting for the Southeast Region.
- Assisted the Mississippi State University Extension Center's program with the Deer Island Coastal Cleanup event. Attended the Jackson County Sand Jam: "Turtle Up Mississippi!" to educate the public on the use of turtle excluder devices in shrimp trawls and crab traps.
- Distributed 1,150 crab trap escape rings to commercial and recreational crab fishermen. Since the project began in October 2015, 77,596 escape rings have been distributed to 761 fishermen. A total of 108 TEDs were also distributed through this program. Since the project began, 7,444 TEDs have been distributed to 312 fishermen.



### FISHERY INDEPENDENT TRAWL SAMPLING:

- Collected 213 standardized trawl samples at historical shrimp monitoring stations to observe shrimp growth and abundance, as well as determining an appropriate opening date for shrimp season.
- Collected 167 standardized trawl samples at historical Biloxi and expanded western sound sample site to monitor finfish and invertebrate abundance.
- Continued experimental use of trawl sampling in estuarine waters for monitoring of abundance and migratory patterns or early life stage finfish and crustaceans – 144 trawls were using two small trawl sizes.

### FISHERY INDEPENDENT BLUE CRAB TRAP SAMPLING:

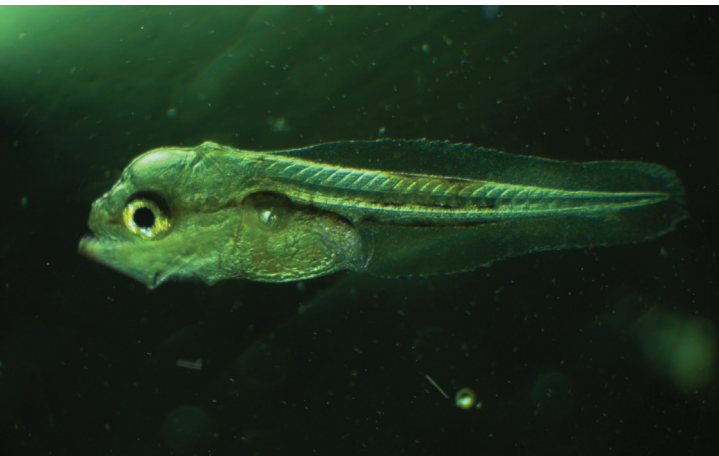
- Set 216 blue crab traps in three major bay systems to monitor Blue Crab abundance, sex and size composition and bycatch composition in recreational harvest waters.
- Set 216 traps in commercial blue crab harvest areas to monitor seasonal abundance and sex and size composition of market-size blue crabs and also evaluate bycatch composition.



## LYMAN HATCHERY BUREAU

During fiscal year 2022, the Aquaculture Hatchery in Lyman completed repairs and upgrades sustained during hurricane Zeta. The hatchery Seatrout have produced millions of fertile eggs each week from May through October to use in stocking efforts. The aquaculture hatchery has increased its efforts towards sustainable agriculture practices with increased species for onsite production of feed. The hatchery continued its support of local high school agriculture programs with technology input, materials and fish for rearing.

- Over 60 Spotted Seatrout broodstock capable of producing over 1 million fertile eggs weekly.
- Hatchery-raised Seatrout implanted with acoustic tags and released.
- On-site production of over 1,000 pounds of hatchery grown fish for feed, and crawfish cultivation also beginning.
- 2,600 native marsh plants for the purpose of nutrient sinks for hatchery aquaculture projects and eventually transplanted for necessary restoration projects.
- Continued support of Mississippi high school aquaculture programs.





# ECOLOGICAL RESTORATION

The MDMR is actively involved in and continuously pursuing ecological restoration in the Mississippi Sound and adjacent waters. This includes a focus on chronic and acute impacts to the full functional extent of the three-state (Louisiana, Mississippi, Alabama Coastal System, or LMACS) estuary. These chronic impacts include ongoing erosion of coastal habitats, barrier island deterioration and extreme freshwater intrusion due to the increasing frequency of Bonnet Carré Spillway openings.

Addressing these impacts through restoration or management actions can be made more effective by incorporating sound scientific data into large and complex decisions. This requires tools capable of predicting system-wide effects of individual projects or multiple projects over time in a changing landscape. The hydrodynamic and ecological modeling tools needed to do this are currently being developed by combining resources from Mississippi State University and the University of Southern Mississippi. Mississippi's increasing capability in this realm will improve the state's ability to leverage tools and resources from the other LMACS states to provide true system-wide assessment capability to support cross-state partnerships and resolve related issues that could provide mutual benefits.





# MARINE PATROL

- Body worn cameras have been issued to every patrol officer and are proven instrumental in every interaction with stakeholders. The increased quality of evidence has been noted in many successful criminal prosecutions since implementation. Furthermore, officer accountability is evident through a significant reduction in complaints against officers.
- The purchase and implementation of a squadron of three UAVs (drones), one of which has thermal capabilities, have been added to daily patrol efforts and special missions. The Office of Marine Patrols now employs six, FAA-licensed pilots to meet mission needs. The UAVs have been a part of the apprehension of one murder suspect, several Search and Rescue operations and natural resource investigations.
- The Office of Marine Patrol hosted several days of in-house training led by senior officers from both patrol and criminal investigations divisions. The training focused on the proper procedures for conducting boating under the influence (BUI) investigations, multijurisdiction case development, evidence collection and submission and federal fisheries case development and submission.
- Re-powered three, 22' NauticStar bay boats to maintain current shallow water response capabilities. The office purchased one Avid 23Mag (aluminum bay boat) for increased quick response to shallow water events.
- The Office of Marine Patrol procured two Chevrolet 1500 pickup trucks to replace aging emergency response vehicles.
- The Office of Marine Patrol cooperates with state and federal taskforces using officer liaisons. This provides timely and accurate information to safeguard the public and for the protection of critical infrastructure along the marine waterways.
- Responded to 28 boating accidents, including seven with injury.
- Responded to three drownings.
- Processed 12 public information requests.
- Officers and/ or staff participated in 3,650 training hours and 476 Reserve hours.



NOTABLE FISHERIES VIOLATIONS	
Possession of Red Snapper during a closed season	4
Possession of undersized Red Snapper	7
Red Snapper seized for no Tails N' Scales	31
Undersized Spotted Seatrout	39
Undersized Red Drum	4

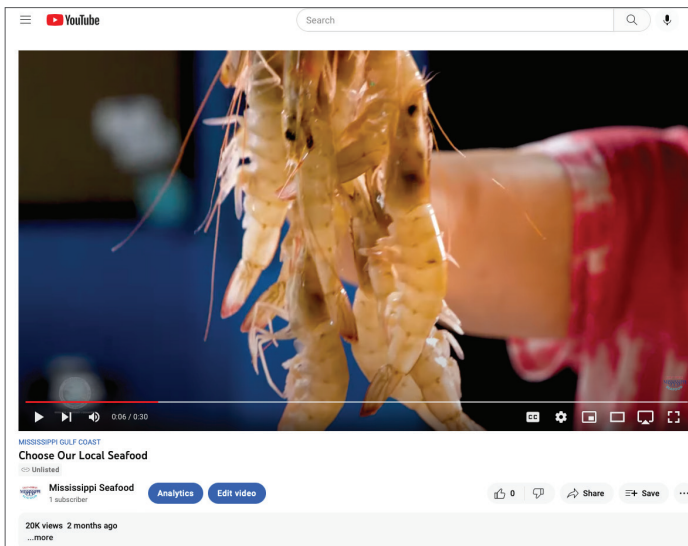
CITATIONS AND WARNINGS:	
Fisheries Violations	135
Boating and Water Safety Violations	182
Boating Under the Influence	32
Wetlands Violations	1
Miscellaneous Violations	33
Courtesy Citations	135
Marine Litter Citations	5
Commercial Fishing Violations	76



# PUBLIC OUTREACH

The Public Affairs Bureau provides a proactive program of community outreach, education, public information and legislative and media relations. These outreach efforts promote awareness of the MDMR and its roles, responsibilities and programs in balancing economic interests with enhancing, protecting, managing and conserving Mississippi's marine resources. This bureau participates in events throughout the community and distributes information through news releases, social media sites, brochures, a rules and regulations book, calendar, photographs and content for the MDMR website. Public Affairs also provides support to other offices and programs within the agency to create consistent, professional materials to further the agency's mission. The Seafood Marketing program is contained within Public Affairs, and it markets the sale and consumption of Gulf seafood to people throughout Mississippi and the southeastern region of the country.

- Worked with a production company to develop 30-second videos promoting the MDMR and the Mississippi Seafood program. To view Mississippi Seafood's commercials, visit [bit.ly/YouTubeMSSeafood](https://bit.ly/YouTubeMSSeafood). To view MDMR's commercials, visit [bit.ly/YouTubeMDMR](https://bit.ly/YouTubeMDMR).
- Printed 50,000 brochures and promotional items, which are used to increase awareness of the MDMR brand and educate the public about coastal resources and fishing rules and regulations.
- Chef Austin Sumrall with White Pillars Restaurant in Biloxi was selected to represent Mississippi in the Great American Seafood Cookoff (GASCO) in New Orleans August 2021. Chef Austin won first place at GASCO and was crowned King of American Seafood.
- Partnered with the Gulfport Chamber of Commerce for their Taste, Rattle and Roll event to host the return of the Mississippi Seafood Cookoff following the COVID-19 pandemic. The cookoff was held in May at Centennial Plaza and Chef Cooper Miller of Forklift in Tupelo won the title of Mississippi Seafood King.
- Assisted MDMR staff with promoting meetings and events on MDMR's website, social media and Licensing screen.







ENHANCE ★ PROTECT ★ CONSERVE

The Mississippi Department of Marine Resources is dedicated to enhancing, protecting and conserving the state's marine interests by managing all marine life, public trust wetlands, adjacent uplands and waterfront areas to provide optimal commercial, recreational, educational and economic uses of these resources consistent with environmental concerns and social changes.







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MISSISSIPPI DEPARTMENT  
OF MARINE RESOURCES

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